Enhancing Intelligibility in ELF by Focusing on the Origin of Katakana Loanwords

ELF学習者の発話の明瞭性を高める指導法: カタカナ語の影響に焦点を当てることの効果について

Marc. D. Sakellarios, サカラリオス・マーク Tamagawa University, Center for English as a Lingua Franca, Japan marcus@lab.tamagawa.ac.jp

Gregory Price, プライス・グレゴリー Tokyo University of Science, Department of Science and Engineering, Japan grendel.t@gmail.com

ABSTRACT

This paper has sought to demonstrate negative language transfer resulting from non-English loanwords in the Japanese language. Prior to conducting our experiment, we theorized that some L1 interference may result from the use of katakana for these borrowed words, which potentially leads to some students not knowing which loanwords are English, and which are of non-English origin. To test this theory, a double-blind randomized experiment was conducted among 83 university students at Nihon University's School of Pharmacy. Subjects were given a vocabulary test containing five questions; one with descriptions of the English words only, and the other with descriptions and the katakana counterparts. Our aim was to test whether students given the katakana would assume it to be English. Compared to the control group (mean score = 1.551 out of 5), the group with access to the katakana counterparts scored significantly lower (mean score=0.738). An unpaired t-test of the results was conducted, and the result showed a significant difference between the two groups (p = 0.0018). A follow up survey was conducted of 144 students from Tokyo University of Science and Nihon University's School of Pharmacy to see if students could identify the origin of common non-English loanwords. Of the loanwords tested, 80.56% of students incorrectly identified one or more of the words to be from an English-speaking country. This supported the hypothesis that students may not be able to discern the origin of Japanese loanwords.

KEYWORDS: Negative language transfer, Katakana, Loanwords, English as a lingua franca, Language learning

1. INTRODUCTION AND BACKGROUND

In Japanese, there are three basic syllabaries. Kanji is closely related to Chinese writing and is used solely for Japanese words. Hiragana, is a phonetic syllabary generally used for grammatical endings to words in kanji, and for all words of Japanese origin. Katakana is a special Japanese phonetic syllabary used for foreign loanwords. Both hiragana and katakana have matching sounds for each of the roughly 50 sounds represented by their corresponding syllabary (Hadamitzky & Spahn, 1996). The usage of katakana dates back to the Heian period, and has had a variety of applications throughout the history of the Japanese language (Seeley, 1991). The prevalence of katakana in connection with foreign words and its effect on Japanese students of the English language is the main focus of this paper.

In most cultures the usage of foreign based words within the media is often felt to be rather chic or cosmopolitan (Friedrich, 2002). Batra (cited in Özturk, 2015), states, "Products with a foreign brand name will be evaluated as having a foreign country origin and improves the brands' desirability for symbolic, status and enhancing reasons in addition to suggesting overall quality" (p. 283). From the latter half of the 20th century continuing through present day there has been a rising number of reasons for the usage of katakana to denote foreign words. Some examples of these would be company regulations on documents, and new terminology, especially in the computer and science fields (Inoue, 2001). In Japan's high consumer culture, marketing companies often make use of foreign terms. The popularity of foreign culture in Japan encourages this (Piller, 2003). Therefore, the prevalence of foreign words transcribed into katakana is virtually everywhere in Japan. The separation of foreign words into katakana leads to a heightened awareness of this vocabulary as being foreign, and instead of being fully integrated into the Japanese language, it is set apart (Kay 1995). This might lead to a general assumption that since these words are differentiated from Japanese words, that their use in Japanese communication is likely to be the same as in the country of origin. According to Kay (1995), because of this "there is often transference from loan usage to English, leading to incorrect expressions in Japanese English" (p. 74).

In Japanese, as well as other languages, the degrees of separation from the origin of loanwords often lead to such words being used out of context (Kent, 1999). For example, the use of $\overline{\neg} \cancel{17}$ (rai bu) is most often used by Japanese speakers as a noun, as in "Tonight I will go to see a raibu." Though in English the term live in this context is always used as an adjective. Out of a survey of 104 Japanese college students, 79 felt that the term raibu and its usage to be acceptable Japanese (Loveday, 1986). A personal observation shows an example of the misconception that words written in katakana are widely understood by any native English speaker. Many native English speakers may have limited knowledge of German, therefore would likely be incapable of understanding a Japanese university student's meaning of $\overline{\gamma}$.

to Japanese English learners since their exposure to this word is through katakana. They may assume that an English speaking foreigner would be able to understand this word.

Gairaigo and wasei eigo are terms for these words that originate from foreign languages. Gairaigo generally denotes direct borrowings, while wasei eigo is a more creative form of borrowed language that often strays quite a bit from the original words. Since they are both written in katakana in the same way, it is not easy for a native Japanese speaker to differentiate between words that are directly borrowed from English and wasei eigo. Many of these would be quite confusing to native English speakers (Oksanen, 2010). Simplified words such as $\forall 7 h$ (so fu tau) for software, $\pi - \Delta$ (hau mu) for platform, or combined words such as $\forall 7 h = 0$ (se ku hæ ræ) for sexual harassment, and $N \forall \exists \forall \forall \exists \forall (pa su ka n))$ for personal computer.

One of the most recognizable effects of katakana on English language learning is in the realm of pronunciation. The Japanese kana system has similar sounds with the English phonetics, but is often a limitation for Japanese students of English (Ikegashira, Matsumoto, & Morita, 2009). According to Suarez and Tanaka (2001), "Students who annotated English pronunciation primarily using the Japanese katakana syllabary, ... were ... shown to have significantly lower test scores than other students" (p. 99). One of the multiple consequences of using katakana for English words is the addition of a vowel sound to the ending of practically every borrowed word, with the exception of words that end with the n sound, such as π $-\mathcal{V}\mathcal{P}\mathcal{V}$ (supports fare η) sports fare. The addition of a vowel sound to the ending not only adds a different sound altogether to the end of an English word, but also changes the cadence of the syllables (Kay, 1995). An example would be chocolate /chô k -l t / which has only two syllables in English, whereas chyokoreto $(\mathcal{F} \exists \exists \nu - k)$ has twice that amount. Natural language acquisition often requires the brain to notice patterns and make guesses based on previous input. Studies suggest that syllables are basic building blocks for the initial recognition of language in babies (Bertoncini & Mehler, 1981). So it is possible, although we have not found any research to corroborate this assumption, that a misunderstanding of the correct number of syllables for an English word can lead to negative language transfer for L2 students/speakers.

Of course it is perfectly normal and acceptable for a language to borrow and use terms from other languages. For the Japanese language to include borrowings from other languages is natural. The effects of using katakana to denote these loanwords are important to understand for both language learners and teachers alike. The use of a separate writing system for foreign words creates the appearance of borrowed words as being somewhat separate from Japanese words, and not fully incorporated into the language (Hinenoya & Gatbonton 2000).

The use of katakana is often a crutch for correct pronunciation of foreign words, and this can divert the Japanese student of foreign languages from the more accurate pronunciation (Suarez & Tanaka, 2001). The experiment used in our research shows that when presented with non-English Japanese loanwords, students perhaps

assumed these katakana words were the same in English. This holds a strong potential for negative transfer in the students' L2. The solution to these issues should not be to drastically change the language, but rather to develop a wider student understanding of these points, and a stronger focus on these issues by both English teachers in Japan and, perhaps equally important, Japanese language teachers.

2. METHODS AND MATERIALS

A hypothesis was formulated regarding the negative effects of katakana loanwords on L1 Japanese learners of English. It was theorized that students might not be capable of discerning whether the loanwords written in Katakana were of English or non-English origin. To test this hypothesis, a quiz was given to students containing words which were loanwords of non-English origin in their first language. The students were asked to write the English word in the space provided.

The control group was given quizzes which only contained definitions of words such as x-ray. The definition used in this case was This is a machine that doctors use to look at bones.

The experiment group was given questionnaires which contained the same definitions, but also included the Japanese loanword counterpart. In the case of x-ray, "レントゲン" (rɛ ŋ toʊ gɛ ŋ) was used. レントゲン is a Japanese loanword of German origin derived from the German physicist Wilhelm Conrad Röntgen.

The aim of this was to see if students would, if given the gairaigo equivalent, choose to write the Japanese loanword in roman characters (e.g. "Rentogen"); perhaps assuming it was an appropriate English word. The teacher instructed the students to use only English, and the directions on top of the quiz clearly stated that the students were to write the English word.

Two coed Nihon University School of Pharmacy classes were chosen due to their size and demographic. The students were all enrolled in a first-year "Freshmen English" class. The students were place in these classes based on their year of study and English level (pre-intermediate). All students were between the ages of 18-20 years old. Both classes were held in the morning between the hours of 9:00 a.m. and 12 noon.

Questionnaires were shuffled randomly to prevent the experimenters or students from knowing which students were given which questionnaire. The students were spaced out evenly throughout the classroom to prevent cheating or discussion. A timer was set for 5 minutes, and the students were prompted to pass up their paper when the timer rang. After the test was completed in the first class, the students were instructed not to discuss the contents of the questionnaire with the second class. We assume the students followed this instruction due to the consistency of the results between the two classes.

3. RESULTS

The difference in mean score between the two groups was quite pronounced. The control group had a mean score of 1.551 (out of 5), while the experimental group had a significantly lower mean score of 0.738. Looking at the graph labeled "Mean Comparison" (Figure 1 below), the substantial difference in mean scores becomes apparent. An unpaired t-test of the results was conducted, and the result showed a significant difference between the two groups which were highly unlikely to be reached through chance alone (p = 0.0018). By traditional standards, a test is considered highly statistically significant when a p-value of p < .001 is reached. As the test was conducted in a controlled environment, we feel confident that the difference between the groups was the result of katakana loanword exposure rather than other confounding factors.

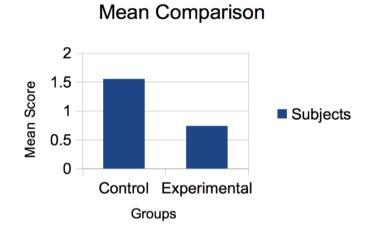


Figure 1. Mean comparison between control and experimental groups.

3.1 Follow-up survey

A follow up survey was conducted of 144 students from Tokyo University of Science and Nihon University's School of Pharmacy to see if students could identify the origin of common non-English loanwords. To prevent previous exposure, none of the students in the survey had taken part in the first experiment. All students were first and second year Japanese university students.

The instructions at the top of the survey read "この言葉はもともとはどこの国 の言葉だったでしょうか?" (Which country do you think these words originally came from?). We intentionally chose only loanwords which were of non-English origin for coding purposes. The words which were chosen were ナトリウム (nə toʊ ri u mu), which means "salt/sodium" and originates from German, アンケート (A ŋ keī toʊ), which means "questionnaire" and originates from French, ブランコ (bu rA ŋ koʊ), which means "a swingset swing" and originates from Portuguese, ミイラ (mi i rA), which means "mummy" and originates from Portuguese, and ズボン (zu boʊ ŋ), which means "pants" and originates from French. These words were sourced from the writer's knowledge of the Japanese language.

Of the five non-English loanwords tested, 19.44% of students correctly identified that all words originated from non-English-speaking countries. 80.56% of students identified one or more of the words as having originated from countries where English is the official language (USA, England, Australia, and Canada). Of the students, 21.52% of the students identified one of the words as originating from an English-speaking country, 37.5% identified two of the words words as originating from an English-speaking country, 15.27% identified three of the words words as originating from an English-speaking country, 6.24% identified four of the words words as originating from an English-speaking country, and 2.08% identified all five of the words words as originating from an English-speaking country.

We were not overly concerned with "correct" answers, but rather if the students felt these words were of English-speaking origin. It was however noted that the students averaged 0.53 correct out of a possible five questions.

The results of this questionnaire seem to support the hypothesis that a number of Japanese speakers of English perceive that some non-English loanwords are derived from English-speaking countries. This confusion may lead to non-English loanwords being used in conversations with strictly English-speaking interlocutors. This may cause issues regarding intelligibility.

4. DISCUSSION

When looking at the results of this experiment and follow up survey, it becomes clear that katakana loanwords likely have a negative effect on L1 Japanese learners of English. What is less clear is the mechanism by which this interference is occurring. The following week, after the questionnaires were administered, a class was taught to the same students focusing on the origins of katakana loanwords in the Japanese language. It was noted that many students seemed surprised to discover that words such as $\mathcal{P} \succ \mathcal{T} - \mathbb{N}(\mathfrak{a} \ \eta \ \mathrm{k} \varepsilon \ \mathrm{to} \upsilon)$, derived from the French enquête, and $\mathcal{P} \sqcup \mathcal{N} \land \mathbb{N} \wedge \mathbb{N}$ (A ru bai tov), derived from the German arbeit, were, in fact, not English at all. They also seemed surprised that words such as $\mathcal{P} \land \mathcal{T} \land \mathbb{N}$ (A ru being that words such as $\mathcal{P} \land \mathcal{T} \land \mathbb{N}$ (at su), the ice morpheme of ice-cream, were incomplete English words.

We would like to see more education given to Japanese students regarding the origin and/or proper English counterpart of Japanese loanwords to increase worldly knowledge, and intelligibility with L1 English speakers. There has been much discussion over the years amongst the English teaching community in Japan about how to rectify the misconceptions and negative transference created by loanwords in Japanese, which are denoted by katakana. Some on the extreme side may hope for the day when katakana is eradicated from the language completely, and loanwords could be written in hiragana, or some solution along those lines. We feel that the key to increasing intelligibility with English speakers rests in educating students with

regards to the origins of certain commonly used gairaigo vocabulary.

It is suggested that teachers of both English and Japanese make a point to note the origin of non-English katakana vocabulary, as well as their English counterparts. To extend this awareness, a standardized method of clearly displaying the origin of the katakana words could be integrated into dictionaries. The purpose of this is not to burden the students or teachers with tedious lessons or memorization of foreign word origins, but instead to create an awareness of the wide variety of word origins, increase intelligibility when speaking with English speakers, and to make students aware of the rich history of intercultural communication Japan has had with various countries around the world.

As proponents of the ELF (English as a Lingua Franca) paradigm, we are mostly concerned with communication ability. We feel that knowledge of non-English loanwords will increase communication ability between Japanese and English-speaking interlocutors.

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APPENDIX A

Questions

Please write the English word or words which best match the description.

1.) A kind of job which you usually work less than 28 hours a week. Sometimes university students have a job like this to help pay for school.

2.) This is a machine that doctors use to look at bones.

3.) Questions asked of people to gather information. A company or experimenter may use these questions to do research.

4.) A dessert which is made of milk and served cold.

5.) A two-wheel bike with an engine. An example is Harley Davidson.

Thank you for taking the time to answer.

APPENDIX B

Questions

Please write the English word or words which best match the description.

1.) A kind of job which you usually work less than 28 hours a week. Sometimes university students have a job like this to help pay for school. ($\mathcal{P}IVIII$)

2.) This is a machine that doctors use to look at bones. $(\nu \nu h f \nu)$

3.) Questions asked of people to gather information. A company or experimenter may use these questions to do research. $(\mathcal{P} \succ \mathcal{T} - \mathbb{N})$

4.) A dessert which is made of milk and served cold. $(\mathcal{P}\mathcal{T}\mathcal{A})$

5.) A two-wheel bike with an engine. An example is Harley Davidson. (バイク)

Thank you for taking the time to answer.